

Application No.: 09/874,510

Docket No.: JCLA9803

partition distributing means coupled to said partition generating means for determining a combination of said plurality of partitions in a predetermined distribution based on the number of channels in each of said plurality of partitions;

partition sequence generating means coupled to said partition distribution means for forming a partition sequence by assigning each of said plurality of partitions into a plurality of preselected receiving signal slot sets based on said combination; and

generated hopping sequence means, coupled to said partition sequence generating means, for partition mapping from the original hopping sequence, wherein said partition mapping is responsive to said partition sequence.

Claim 37 (currently amended) The selective hopping system of claim 36, wherein said partition generating means further defines a first interference collision ratio being a number measured interference divided by a number of selected received signal packets subtracting a number of unknown events, wherein an unknown event has a received signal power less than a first predetermined threshold; and

grouping said plurality of available channels having values of the ^{first} ~~fourth~~ interference collision ratio within a predetermined range into the same one of said plurality of partitions.

Claim 38 (currently amended) The selective hopping system of claim 36, wherein said partition distributing means further comprises:

dividing means for dividing said predetermined distribution into a plurality of superframes;

Application No.: 09/874,510

Docket No.: JCLA9803

Claim 57 (currently amended) The selective hopping system of claim 55, wherein said traffic management means selects an asynchronous signal packet for transmission responsive to the reservation status of the time slot and a list of said good channels.

Claim 58 (original) The selective hopping system of claim 36, wherein the frequency hopping spread spectrum communication system is a Bluetooth communication system.

Claim 59 (currently amended) A selective hopping system for hit avoidance in a frequency hopping spread spectrum communication system utilizing an original hopping sequence, having a plurality of available channels for receiving signal traffic with a plurality of receiving signal slots, the plurality of available channels all being available for use in frequency hopping, comprising:

a hopping sequence generator having an input from a hop clock;

a partition sequence change processor for providing a process for changing a partition sequence;

said a partition sequence generator having inputs from said hop clock, a traffic requirement, and a channel partitioning circuit, and [[a]]said partition sequence generator generating [[a]]said partition sequence;

an original/mapped sequence selector having an input from said partition sequence change processor for selecting a hopping sequence;

a partition mapper having inputs from said hopping sequence generator and said partition sequence generator; and

Application No.: 09/874,510

Docket No.: JCLA9803

said partition ^{mapper} ~~mapping circuit~~ serving to map said partition sequence into a generated hopping sequence;

a multiplexer receiving the signals from said hopping sequence generator, said partition mapper and said original/mapped sequence selector for multiplexing said input signal;

a frequency synthesizer receiving an output from said multiplex and outputting a continuous sinusoidal signal with a frequency being determined by the current channel number from the hopping sequence;

a mixer receiving an RF input signal and mixing said RF input signal with the signals from said frequency synthesizer, wherein a mixed signal is converted to a lower and fixed intermediate frequency signal;

a channel quality/interference level measurement circuit for measuring channel qualities and interference levels; and

a channel partitioner for receiving inputs from said channel quality/interference level measurement circuit and then dividing said available channels into various partitions which are provide to the partition sequence generator.

Claim 60 (original) The selective hopping system of claim 59, wherein said channel partitioner divides the plurality of available channels into a plurality of partitions.

Claim 61 (original) The selective hopping system of claim 59, wherein said partition sequence generator distributing the available channels in each of said plurality of partitions into a